

*Genuine*  
**MASONITE**

STRUCTURAL INSULATION  
INSULATING LATH—QUARTRBOARD  
PRESWOOD—TEMPRTILE  
1935



**MASONITE** *Corporation*  
111 *W. Washington Street*, CHICAGO, ILLINOIS





SPECIFICATIONS as given in the following pages will cover adequately the greater number of Masonite installations. Where additional information or special information or data is desired, it may be obtained upon request by addressing the Engineering Department, Masonite Corporation, 111 West Washington St., Chicago.

Masonite Corporation engineers will gladly make a careful analysis of any insulation, condensation or acoustical problem if provided with necessary data and plans.

*Reprinted from*  
**SWEET'S CATALOG FILE**  
**« ARCHITECTURAL »**  
*1935 Edition*





# MASONITE Corporation

111 W. Washington Street,

CHICAGO—ILLINOIS.

## PRODUCTS

MASONITE STRUCTURAL INSULATION      MASONITE INSULATING LATH      MASONITE TEMPRTILE  
MASONITE CUSHIONED FLOORING      MASONITE QUARTRBOARD      MASONITE DE LUXE  
QUARTRBOARD      MASONITE PRESWOOD, 1/10 in., 1/8 in., 3/16 in., 1/4 in., 5/16 in. THICKNESSES  
MASONITE TEMPERED PRESWOOD, SAME THICKNESSES



## MASONITE INSULATION

### *Its Manufacture and Adaptability*

Masonite products are manufactured boards made entirely of wood fibre. They possess the natural strength and composition of wood but are without grain and other defects found in wood.

In the production of these scientific wood products, clean wood chips are exploded under high pressure steam so that the wood is reduced to fibre. The product thus produced consists entirely of lignocellulose fibres, their strength unimpaired, and the lignin or natural cement structure of the wood entirely retained. No chemicals are used, and the exploding process is purely a physical one, so that there is no change in the wood except tearing it apart into natural fibers.

These fibers are refined, felted and pressed in flat bed heated hydraulic presses into board form. No binder is added, the natural cementing matter or lignin of the wood being used to bond the fibers together. Pressure is applied hydraulically until the required degree of density is obtained, the heat of the platens in the presses driving off all of the moisture. It is possible, therefore, to fabricate Masonite products in various degrees of density and thickness, suiting the formation to the service the board is to perform.

### *Insulation Values*

The thermal conductivities of Masonite products have been determined by Professor J. C. Peebles of

Armour Institute of Technology, using the hot plate method of test, expressing the results in B.t.u. per inch of thickness, per square foot, per degree Fahrenheit difference, per hour.

MASONITE Structural Insulation . . .	.328 B.t.u.
Quatrboard . . . . .	.55 B.t.u.
Presdwood . . . . .	6.20 B.t.u.

### *Where to Use MASONITE Products*

Only the most common uses of Masonite products are discussed in the following pages, the more unusual ones being reserved for special bulletins. Probably the most common use of Masonite Structural Insulation is sheathing for frame, brick, stone, or stucco exterior walls. It replaces other materials without increase in cost, combining high insulation value and structural strength into one material.

Labor costs are reduced by the increased rapidity and ease with which the big, uniform boards go into place. Also waste is cut to the irreducible minimum.

This same product is furnished as a base for plaster. It is furnished in sizes 12 in., 18 in., or 24 in. x 48 in. Masonite Insulating Lath is furnished in bundles of 100 square feet, and is shiplapped along both 4 ft. edges. Applied in staggered arrangement, it makes an exceedingly strong, rigid base. The plaster bond is greater than 1000 pounds per square foot of surface.





Masonite Insulation products are highly resistant to moisture. Tests made by the Robert W. Hunt Company for water absorption where the samples were completely immersed in water report 2.59% by volume at the end of four hours, 7.16% at the end of 24 hours, and 15.8% at the end of 72 hours. Shrinking and swelling of these products are practically negligible.

**COCKTAIL BAR,  
BOOK-CADILLAC,  
HOTEL-DETROIT**

The surface and color of these Masonite products make them



particularly suitable for use as interior finish. They are smooth with just enough texture and mottling to provide an interesting surface. These products may be left in their natural state or may be given many types of finish, a few of which are covered in the following pages. Being true wood products, they possess permanence and a look of permanence that is quite uncommon in partitions constructed of somewhat similar products.

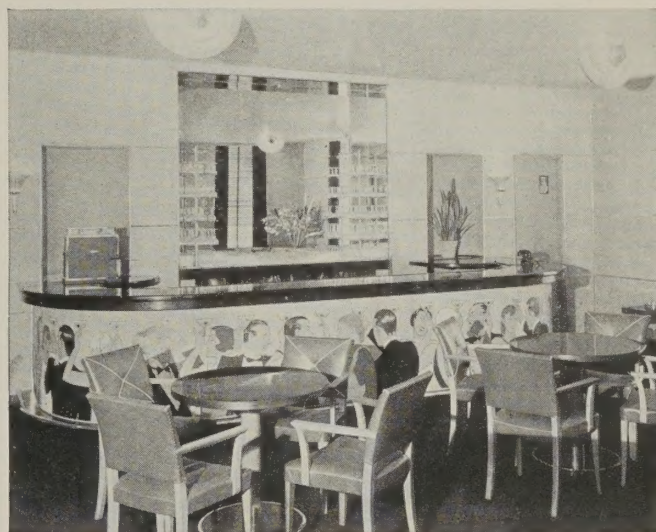
Masonite Insulation is also used to reduce heat losses through roofs of homes or larger buildings. It may be applied under or over wood rafters, concrete, wood, gypsum, or steel decks. Special sizes suitable for this application are available.

On another page there is presented a chart giving exact figures of heat losses in a few of the different types of roofs, showing how these heat losses may be reduced and brought under control. Also, the quantity of Insulation required to prevent condensation.

Where Masonite Insulation is used on walls, ceilings, and floors, it has another important function along with its structural and heat insulation values. It is an invaluable material for the control of sound. With the

increasing demand for soundproof construction, it is especially interesting to note that the use of Masonite provides excellent results with little additional cost.

Testing the reduction of sound intensity through different (standard) types of partitions, Dr. Paul E. Sabine of Riverbank Laboratories, Geneva, Illinois, found that a 4-in. clay tile plastered partition weighing 28 pounds per square foot had a reduction of 34 decibels, while through a partition of Masonite Insulation on wood studs plastered, the weight was 17 pounds per square foot, and the reduction was 35.1 decibels.



**COCKTAIL BAR,  
BOOK-CADILLAC  
HOTEL-DETROIT  
WALLS PRESWOOD  
PAINTED CANARY,  
CHROMIUM STRIPS  
ON JOINTS  
BLACK CARPET  
AND DRAPERIES**

Masonite Insulation also has an unusually high rating as a sound absorbent material. Tests made by the official laboratory of the Acoustical Materials Association on material purchased from lumber dealers' stocks report the unusually high efficiency of this material in the following chart:

FREQUENCY	128	256	512	1024	2048	NOISE REDUC- TION CO- EFFICIENT
Standard Masonite Insulation 24 in. O.C.	.20	.46	.33	.37	.37	.40
Standard Masonite Insulation 16 in. O.C.	.28	.42	.40	.32	.43	.40



# HEAT LOSSES

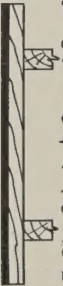
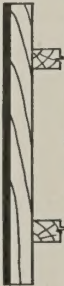
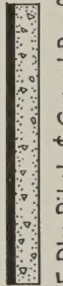
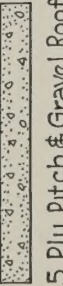
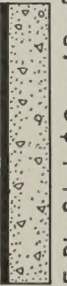


## THROUGH VARIOUS ROOF CONSTRUCTIONS

### —INSULATED and UNINSULATED—

MASONITE



Corporation

TYPE OF ROOF INSULATION		Conductivity -K-	Percent Saving Due to Insulation	Sq. Ft. of Radiation Required Per 1000 Sq. Ft. Roof Area, for 10° Difference in Temperature. Multiply Amount Shown by Diff. in Temp.	Heat Losses In Tons Of Coal Per 1000 Sq. Ft. Of Roof Area, Per 210 Days At Differences Of Temperature Shown. Calculations Are Based On Average Heating Value Of Coal 12000 B.T.U. And Furnace Efficiency Of 60%. Temperature Difference — F										
					10°	20°	30°	40°	50°	60°	70°	80°	90°	100°	
	None	.485		2002	3032	1.70	3.39	5.10	6.79	8.50	10.19	11.89	13.58	15.27	17.00
	One Layer MASONITE	.280	42%	11.67	17.50	.98	1.96	2.94	3.92	4.90	5.87	6.84	7.83	8.82	9.80
	Two Layers MASONITE	.196	60%	8.16	12.50	.68	1.37	2.06	2.74	3.43	4.12	4.79	5.48	6.15	6.85
	None	.345		14.37	21.57	1.20	2.40	3.62	4.83	6.04	7.24	8.45	9.65	10.85	12.05
	One Layer MASONITE	.226	35%	9.42	14.22	.79	1.58	2.37	3.16	3.96	4.75	5.54	6.33	7.12	7.92
	Two Layers MASONITE	.168	51%	7.00	10.50	.59	1.17	1.76	2.35	2.94	3.52	4.12	4.70	5.29	5.88
	None	.658		27.40	41.13	2.31	4.61	6.90	9.22	11.50	13.81	16.11	18.41	20.72	23.06
	One Layer MASONITE	.330	50%	13.75	20.61	1.15	2.30	3.45	4.61	5.75	6.90	8.05	9.20	10.36	11.53
	Two Layers MASONITE	.220	67%	9.16	13.75	.77	1.54	2.30	3.08	3.84	4.61	5.37	6.14	6.92	7.70
	None	.610		25.40	38.17	2.13	4.27	6.40	8.54	10.68	12.81	14.95	17.10	19.20	21.35
	One Layer MASONITE	.317	48%	13.21	19.80	1.11	2.22	3.32	4.43	5.54	6.65	7.75	8.86	9.97	11.08
	Two Layers MASONITE	.214	65%	8.92	13.38	.75	1.50	2.24	2.99	3.74	4.50	5.24	5.99	6.74	7.49
	None	.568		23.65	35.75	1.99	3.98	5.96	7.95	9.94	11.92	13.90	15.89	17.88	19.86
	One Layer MASONITE	.306	46%	12.75	19.13	1.07	2.14	3.21	4.28	5.35	6.42	7.49	8.56	9.63	10.72
	Two Layers MASONITE	.209	63%	8.71	13.08	.73	1.46	2.19	2.92	3.65	4.38	5.11	5.84	6.57	7.32
	None	.500		20.81	31.25	1.75	3.50	5.25	7.00	8.75	10.50	12.25	14.00	15.75	17.50
	One Layer MASONITE	.285	43%	11.88	17.82	.99	1.98	2.97	3.96	4.95	5.94	6.93	7.92	8.91	9.90
	Two Layers MASONITE	.199	60%	8.29	12.45	.70	1.40	2.10	2.80	3.50	4.20	4.90	5.60	6.30	7.00
	None	.495		20.62	30.95	1.73	3.46	5.19	6.92	8.65	10.38	12.11	13.84	15.57	17.30
	One Layer MASONITE	.292	41%	12.15	18.25	1.02	2.04	3.06	4.08	5.10	6.12	7.14	8.16	9.18	10.20
	Two Layers MASONITE	.207	58%	8.62	12.93	.72	1.44	2.16	2.88	3.60	4.32	5.04	5.76	6.48	7.20

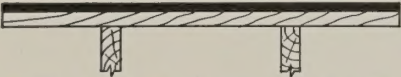
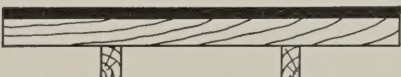
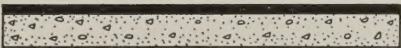
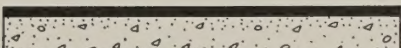
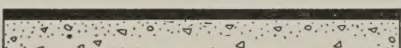
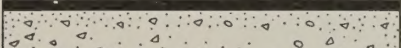





# CONDENSATION CHART

The following example will explain the condensation chart. On a roof of five-ply pitch and gravel type, condensation starts at a relative humidity of 50% when the difference in temperature is 70° and the roof is uninsulated. Insulated with one layer of Masonite, the same roof under the same conditions would show no condensation up to a humidity of 70%, while two layers of Masonite would resist humidity up to 80%.

CHART SHOWING WHETHER OR NOT CONDENSATION WILL FORM ON BOTTOM OF DECK  
Black Indicates Danger Of Condensation  
White Indicates No Condensation

TYPE OF ROOF	Uninsulated	With One Layer Of MASONITE	With Two Layers Of MASONITE		
	Percent Relative Humidity 10 20 30 40 50 60 70 80 90	Percent Relative Humidity 10 20 30 40 50 60 70 80 90	Percent Relative Humidity 10 20 30 40 50 60 70 80 90		
 5 Ply Pitch & Gravel Roof $\frac{7}{8}$ " Wood Deck (Soft Wood)				10 20 30 40 50 60 70 80 90	Temperature Difference
 5 Ply Pitch & Gravel Roof $1\frac{3}{4}$ " Wood Deck (Soft Wood)				10 20 30 40 50 60 70 80 90	Temperature Difference
 5 Ply Pitch & Gravel Roof 2" Concrete Deck				10 20 30 40 50 60 70 80 90	Temperature Difference
 5 Ply Pitch & Gravel Roof 3" Concrete Deck				10 20 30 40 50 60 70 80 90	Temperature Difference
 5 Ply Pitch & Gravel Roof 4" Concrete Deck				10 20 30 40 50 60 70 80 90	Temperature Difference
 5 Ply Pitch & Gravel Roof 6" Concrete Deck				10 20 30 40 50 60 70 80 90	Temperature Difference
 5 Ply Pitch & Gravel Roof 2" Concrete 6" Hollow Tile				10 20 30 40 50 60 70 80 90	Temperature Difference





# APPLICATION SPECIFICATIONS

## MATERIAL

Material shall be Masonite Structural Insulation  $\frac{1}{2}$  in. thick, Masonite Quarterboard  $\frac{1}{4}$  in. thick, Masonite DeLuxe Quarterboard  $\frac{1}{4}$  in. thick manufactured in 4 ft. widths by 5, 6, 7, 8, 9, 10, and 12 ft. in length; Masonite Insulating Lath  $\frac{1}{2}$  in. thick by 18 x 48 in., 24 x 48 in.; Masonite Roof Insulation 22 x 47 in. as manufactured by the Masonite Corporation, Chicago, Illinois.

## FRAMING

Studs, joists, sills, and plates shall be framed as in ordinary frame construction, spaced accurately 12 or 16 in. O.C. Insert 2 x 4 headers to provide bearing for end joints, as all edges must be supported, particularly behind chair rails. On roofs provide suitable pieces for nailing base at the ends of all rafters, ridges, hips, valleys, etc.

*Note:* No extra cross bracing other than commonly used is required. Fire stops and wind bracing are recommended. If required, so specify.

## APPLICATION

Masonite boards shall be applied with the long dimension parallel with and directly to the studding, rafters, or joists, except when Lath is used, allowing ample bearing surface for nailing on all edges. Horizontal joint shall only be made over framed headers. Boards shall be spaced 3-16 in. apart at sides, top and bottom except when used for interior finish, when they should be brought to moderate contact. Do not

force boards into place. Around window and door frames and where tight joints are required, bring Masonite boards to moderate contact. Where standard frames are used, nail a 3 in. wide strip of the Masonite board to build up back of outside window and door casings. Cut Masonite boards to fit snugly around rafters that project beyond the face of studs.



THE FORMER PLUNDER ROOM OWES ITS ATTRACTIVENESS TO MARIETTA CHAIR COMPANY AND MASONITE, WITH ITS PRESWOOD INTERIOR FINISH AND FURNITURE. HACKETT'S IS NOW THE MOST POPULAR SPOT IN TOWN



PLUNDER ROOM IN REAR OF HACKETT'S COCKTAIL ROOM, MARIETTA, OHIO. MASONITE CORPORATION AND MARIETTA CHAIR COMPANY PLANNED A DIFFERENT FUTURE FOR THIS SPACE

Masonite Insulating Lath boards shall be applied at right angles to the rafters, studding, joists, or furring strips. End joint shall be staggered and centered over framing. Ship-lapped edges shall be fitted to moderate contact. Space ends  $\frac{1}{8}$  in. apart.

## NAILING

Beginning in the center, nail Masonite boards first to intermediate supports, and then entirely around all edges with the exception of lath boards. Where Masonite Structural Insulation is used for sheathing purposes, use  $1\frac{1}{2}$  in. galvanized barbed roofing nails, with not less than  $\frac{3}{8}$  in. head, spaced approximately 6 in. apart through the body of the board, 3 in. apart and  $\frac{3}{8}$  in. in around the edges.

Masonite Insulating Lath should be applied with 4d box nails or No. 13 gauge 5-16 in. head blued plaster board nails, spacing nails approximately 4 in. apart,  $\frac{3}{8}$  in. in on the ends.





Where Masonite boards are used for interior finish, a 4d casing head nail should be used, spaced approximately 4 in. apart and driven at a 30 degree angle. Set nails neatly below the surface of the boards.

Masonite Structural Insulation used as a base for wall paper, canvas, plastic paint, etc. should be applied with 4d box nails or 13 gauge 5-16 in. blued fibre board nails, spaced approximately 6 in. apart through the body of the board and 4 in. apart  $\frac{3}{8}$  in. in from the edges. Set nail heads slightly below the surface with a ball head hammer.

#### **MASONITE ROOF INSULATION OVER WOOD DECKS**

Fasten Insulation to deck with nails of sufficient length to extend at least 1 in. into the wood, spaced 10 to 11 in. along each edge and staggered along the longitudinal center line. Nail two layers of Insulation through the top layer only.

#### **MASONITE STRUCTURAL INSULATION AS SHEATHING UNDER SIDING, SHINGLES, STUCCO, BRICK, OR STONE VENEER**

*Note:* See Figures 1, 2, and 3, page 10.

##### **MATERIAL**

*Note:* See Application Specifications page 5.

##### **FRAMING**

*Note:* See Application Specifications, page 5.

##### **APPLICATION**

*Note:* See Application Specifications, page 5.

##### **NAILING**

*Note:* See Application Specifications, pages 5 and 6.

##### **WOOD SIDING**

Apply wood siding directly over Insulation, nailing through to studs. Joints in siding shall butt on center of studs.

#### **SHINGLE WALLS**

Furring strips of 1 x 2 lumber, spaced to the proper shingle weathering shall be applied horizontally over the Insulation and nailed through into the studs. Shingles shall be secured to furring strips in accordance with the manufacturer's specifications.

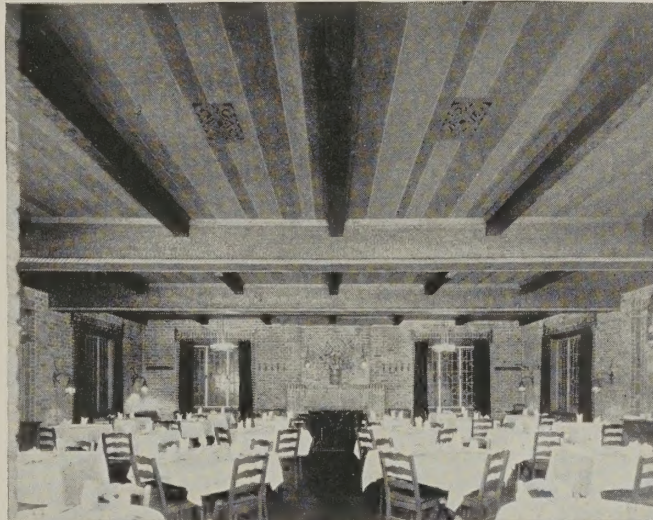
#### **STUCCO FINISH**

Preparatory to application of stucco, cover Insulation with asphalt coated waterproof paper. Then apply approved stucco base nailing through to the studs. Flash over the head casings of all windows and doors with metal. No stucco shall be applied direct to Masonite Insulation on the exterior surfaces. Stucco shall be applied in accordance with the stucco manufacturer's specifications.

#### **BRICK OR STONE VENEER**

Shelf angles, for the support of lintels, etc., and metal wall ties or anchors shall be nailed through Masonite Insulation into studs only. Do not nail between studs.

BARBARA ANN TEA ROOM, READING, PA. INSULATION LEFT NATURAL FINISH AND SCORED TO GIVE EFFECT OF BOARD OF RANDOM WIDTH



Lay masonry veneer with not less than  $\frac{1}{2}$  in. space between Insulation and brick or stone.

#### **MASONITE INSULATING LATH AS PLASTER BASE**

*Note:* See Figures 4 and 5, page 10.

##### **MATERIAL**

*Note:* See Application Specifications, page 5.

##### **FRAMING**

*Note:* See Application Specifications, page 5.

##### **APPLICATION**

*Note:* See Application Specifications, page 5.

##### **NAILING**

*Note:* See Application Specifications, pages 5 and 6.





## Masonite Insulating Lath As Plaster Base (Continued)

All re-entrant angles shall be protected with metal lath corner-right or strips of wire screen cloth from floor to ceiling, and where side walls meet ceiling; also where wood joins masonry construction. The metal lath or wire screen cloth shall be nailed through Masonite into the studs. The center joint of all room ceilings shall be covered with a piece of rib lath, cut so the rib covers center of the joint. Allow a portion of the expanded lath to extend on each side. Rooms over 16 ft. in width shall have two additional strips, spaced midway between the center strip and wall. All strips shall run the long way of the room.

Provide full  $\frac{1}{2}$  in. grounds, nailed securely through the Masonite Insulating Lath to the framing.

Reinforce all outside corners with standard metal corner bead. Nail all reinforcing securely through the Lath into the framing.

### PLASTER

Standard Gypsum Cement Plaster or gypsum wood fibred plaster shall be used for scratch, or scratch and brown coats. Over this apply standard finish as desired. Apply plaster to full  $\frac{1}{2}$  in. finished thickness.

Provide adequate ventilation for the proper drying of the plaster and sufficient heat where necessary to prevent damage by frost. Plaster should set in about  $1\frac{1}{2}$  hours and not to exceed 2 hours.

The plasterer shall use the darby in the direction of the studding, rafters, joists, or furring strips, and it shall be of sufficient length to span two or more supports.

*Note:* Do not wet Masonite Insulating Lath before applying plaster. Lime plaster is not recommended.



WILMINGTON Y. M. C. A.,  
BOYS' GAME ROOM. MASONITE ONE-HALF INCH INSULATION USED ON CEILING AND LEFT NATURAL

## MASONITE STRUCTURAL INSULATION—MASONITE BEVELLED TILE—MASONITE BEVELLED PLANK—MASONITE QUARTRBOARD—MASONITE DE LUXE QUARTRBOARD AS AN INTERIOR FINISH

*Note:* See Figures 6 and 9, pages 10 and 11.

### MATERIAL

*Note:* See Application Specification page 5.

### FRAMING

*Note:* See Application Specifications, page 5.

### APPLICATION

*Note:* See Application Specifications, page 5.

### NAILING

*Note:* See Application Specifications, pages 5 and 6.

### SPECIAL FRAMING

Space framing as may be necessary to meet layout of interior finish but not over 12 or 16 in. O.C. Use straight lumber of uniform thickness. For masonry walls similarly with 1 x 2 strips skimmed to a true level plane.

### FINISHING

Apply battens and trim over Insulation with nails of sufficient length to pass through the Insulation and at least 1 in. into the framing members. If boards are to be painted, the painting should precede application of battens and trim.

Where called for, edges of the boards shall be bevelled or rounded and the surface shall be V grooved or carved before boards are applied.

All joints shall be centered over framing members.

Where the combination cementing and nailing is desired in installing bevelled tile or bevelled plank over a continuous backing, either of wood or plaster, cover the entire back of the tile or plank with a waterproof alcohol base adhesive. Exercise care to prevent adhesive from appearing on the exposed surface. Slide the units into place and nail in position with two nails at each corner and additional nails 5 in. O.C. for large units. Set nail heads neatly below the surface.





## PAINTING AND DECORATING

Masonite boards may be left in their pleasing natural color and finish or may be painted or enameled. Before painting or enameling, the boards should be well sized with a special fibre board size.

*Note:* Most of the leading paint manufacturers make an approved sizing material for this purpose.

## STAINS

Use a glue stain made by dissolving  $\frac{3}{4}$  of a pound of flake or ground glue and a pint of cold water; then dilute with one gallon of boiling water, and add dry color mixed with water and stirred to a thin paste in amounts depending upon tone desired. Apply while still warm.

## WATER EMULSION PAINTS AND CALCIMINES

Apply calcimines or casein emulsion paints of either paste or powder type directly to unsized Insulation. A single coat will give good coverage, although two coats are recommended.

## STENCILING

Fasten stencils into position pinned or by hand in the brackets, and brush colors ground in Japan through stencil into Insulation. The Japan color as purchased should be thinned with a mixture consisting of six parts turpentine, three parts linseed oil and one part Japan Dryer.

## MASONITE STRUCTURAL INSULATION OR MASONITE QUARTRBOARD AS BASE FOR PLASTIC PAINTS, CANVAS, OR WALL PAPER

### MATERIAL

*Note:* See Application Specifications, page 5.

### FRAMING

*Note:* See Application Specifications, page 5.

### APPLICATION

*Note:* See Application Specifications, page 5.

### NAILING

*Note:* See Application Specifications, pages 5 and 6.

## JOINT CONSTRUCTION

Sand the Masonite boards for a width of about 3 in. each way from the joint, using a block of wood and No. 1 sandpaper. Over each joint apply a 2 in. strip of

buckram tape firmly imbedding it in the Swedish putty that has been applied to the joint to receive it. Bring the tape into intimate contact with the board, feathering the Swedish putty along each side of the tape for approximately 1 in. to prevent the edges of the tape from showing through the finished surface. The surface of the tape should be made as smooth as possible, using a painter's scraping tool or pointing trowel. After initial application, allow to stand until the joint is thoroughly dry, and smooth up any uneven spots with a second application of Swedish putty. Allow this to dry and smooth using a wood block and No. 0 sandpaper.

In preparing the joint for the application of plastic paint, plastic paint may be used in the joint construction in place of the Swedish putty.

At the time the joint construction is prepared the nail heads should also be covered with Swedish putty or plastic paint to produce a smooth surface and sanded lightly on drying.

After the joint construction is thoroughly dry, the entire wall should be

given a coat of paper hanger's size and allowed to dry before papering or applying canvas.

### FORMULA AND DIRECTIONS FOR MIXING SWEDISH PUTTY—2 lbs. Casein Glue

(Casco Water-proof Glue)— $\frac{1}{2}$  gallon water—5 lbs. Bolted Whiting— $\frac{1}{2}$  pint lead and oil ready mixed outside paint, light color— $\frac{1}{2}$  pint Spar varnish.

Do not mix in brass, copper, or aluminum vessel. Use iron, galvanized iron, tin, enamelware, glass, china, clay, or wood receptacles. Use only clean receptacles and clean cold water. NEVER USE HOT WATER.

Stir the 2 lbs. of Casein Glue slowly into the  $\frac{1}{2}$  gallon of cold water, stirring for approximately ten minutes. Allow this mixture to stand for thirty minutes. Mix again for three minutes; then stir in slowly the five lbs. of Bolted Whiting. Then add the  $\frac{1}{2}$  pint of outside paint and the  $\frac{1}{2}$  pint of Spar varnish.

*Note:* Sizing is not necessary before the application of plastic paint.

## CORNER CONSTRUCTION

A strip of wire screen cloth or metal cloth bent to a right angle shall be inserted in all around angles and bonded in place with Swedish putty or plastic paint in a similar manner to that specified for joint construction.



MASONITE INSULATION AND PRESWOOD MOULDING STRIPS USED AS PANELING IN NEW OFFICE BUILDING OF THE HELMANY PULP & PAPER CO., KAUKAUNA, WISCONSIN





## MASONITE ROOF INSULATION OVER WOOD, CONCRETE, GYPSUM AND STEEL DECKS

*Note:* See Figures 11 and 12, page 11.

### MATERIAL

*Note:* See Application Specifications, page 5.

### NAILING

*Note:* See Application Specifications, pages 5 and 6.

Keep Insulation and roof dry before, during, and after application. Before laying Insulation, clean roof deck surface. Properly nail springy boards and cover wide cracks and knot holes.

In cases involving high humidities and condensation, treat deck with a two-ply vapor Seal Course, consisting of two layers of 14-lb. saturated felt, half-lapped and mopped back at least 12 in. Extend and turn up Seal Courses to form a water cut-off along all roof edges and vertical surfaces. Then apply Insulation, wrapping Vapor Cut-off extension around edges and mopping down 4 in. to 6 in. on top of Insulation.

Apply only as much Insulation in one day as can be covered by the finished roofing. At the end of each day's work, turn down roofing felt over exposed edge of Insulation and mop securely so seal need not be broken upon resumption of work. Bring adjoining edges of Insulation to moderate contact. Where roof meets vertical surfaces, fit Insulation to insure proper joining without forcing. Apply single layer Insulation with end joints staggered. Apply multiple layer Insulation with long edges of Insulation and succeeding layers parallel to those of the first layer, breaking all joints in successive layers. Where the pitch or slope of the roof exceeds 3 in. to the ft., anchor Insulation to the deck with nails, screws, expansion bolts, or steel darts. With hot asphalt or pitch, mop only sufficient area at a time to provide complete imbedment for a single Insulation unit. Imbed Insulation firmly while the mastic is still hot. Where two or more layers are to be applied in hot asphalt or pitch, similarly mop the exposed surface of the preceding layer and securely imbed the successive layer therein.

Install cant strips around all edges where decks join vertical surfaces.

### WOOD DECK DRIP COURSE

If Insulation is to be applied in a single layer, provide a drip course of rosin sized paper or saturated felt.

### WOOD DECK VAPOR SEAL COURSE

Over wood deck apply a layer of coated building paper, lapped 2 in. at joints and nail it sufficiently to hold in position. Then lay two plies half-lapped saturated felt with 6 in. turned up extensions along vertical surfaces and over the cant strips. Nail back edge of each sheet with tin capped galvanized barbed roofing nails spaced 1 in. on center. Mop back all laps 12 in. Mop exposed vapor cut-off liberally with hot asphalt or pitch, using not less than 30 lbs. per 100 sq. ft., and imbed Insulation securely therein.



**PRIVATE OFFICE. WALLS OF QUARTERBOARD. FLOORS OF TEMPERED PRESWOOD**

### CONCRETE OR POURED GYPSUM ROOFS

Prepare monolithic gypsum or concrete decks with a liberal coating of waterproof primer, using not less than one gallon of primer for each 100 sq. ft. of surface. Mop deck liberally with hot pitch or asphalt, using not less than 30 lbs. per 100 sq. ft., and imbed Insulation securely therein.

### UNIT TILE ROOFS

Properly point up the joints of all tiles where asphalt is used, mop the entire deck, and imbed Insulation therein.

Where coal tar pitch is used, spot mop tile units keeping all moppings back 4 in. from the tile joints and securely imbed Insulation therein.

### STEEL ROOF DECKS AND VAPOR SEAL COURSE

Inspection shall be made to see that the steel deck is free from grease, oil, and dirt and all sharp angles are rounded so as to avoid rough, sharp edges. Lay a strip of roofing felt 6 in. wide uncemented over expansion joints at ridge. Mop roof with hot asphalt (do not use pitch on steel decks), imbedding two plies half-lapped 14 lb. asphalt saturated felt with 6 in. turned up over cant strip extending along vertical surfaces. Mop exposed vapor cut-off liberally with hot asphalt, using not less than 30 lbs. per 100 sq. ft., and imbed Insulation securely therein. Over wood or steel rafters, under slate tile or asbestos shingles, apply Masonite Structural Insulation in sizes 4 x 5, 6, 7, 8, 9, 10, and 12 ft., attaching the Insulation to the rafters sufficiently to hold the boards in place until the wood sheathing is applied over the Insulation. Over the wood sheathing a waterproof membrane roof should be applied before laying the shingles.





# MASONITE CONSTRUCTION DETAILS

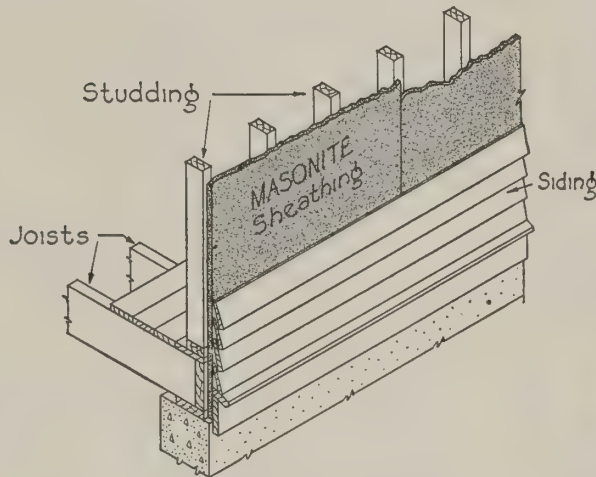


FIG. 1 FRAME CONSTRUCTION

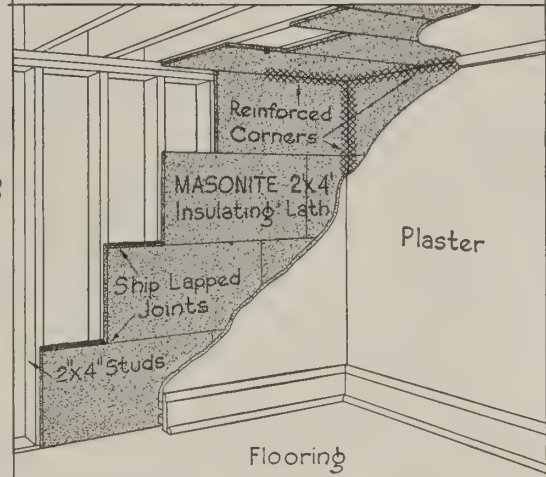


FIG. 4 SHOWING MASONITE INSULATING LATH USED AS PLASTER BASE

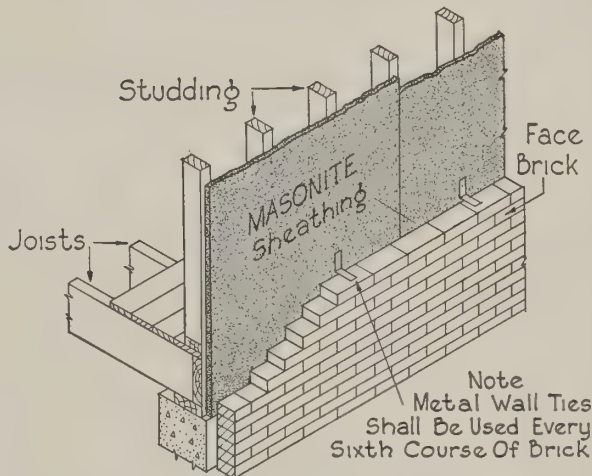


FIG. 2 BRICK VENEER

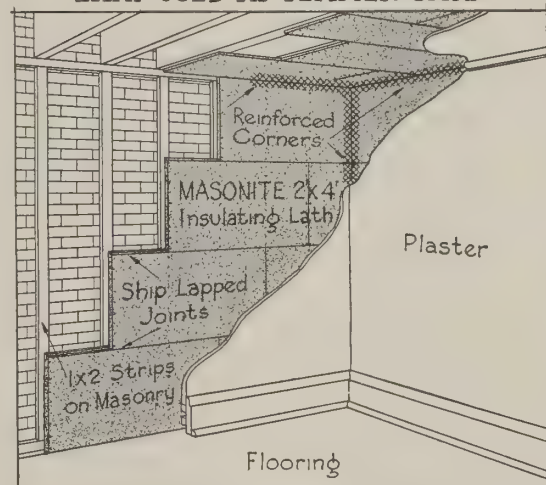


FIG. 5 SHOWING MASONITE INSULATING LATH USED AS PLASTER BASE ON MASONRY

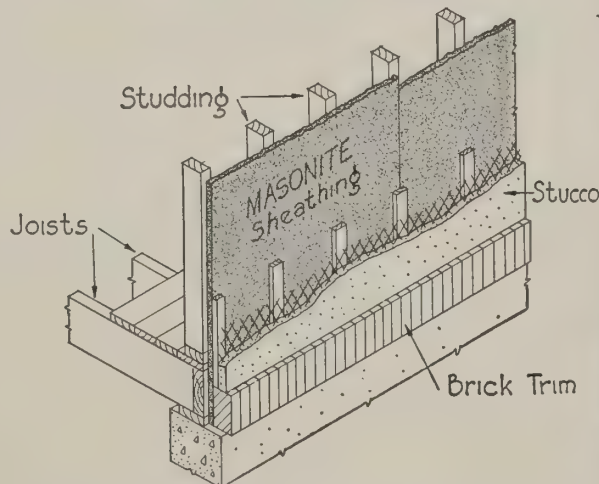


FIG. 3 STUCCO ON FRAME

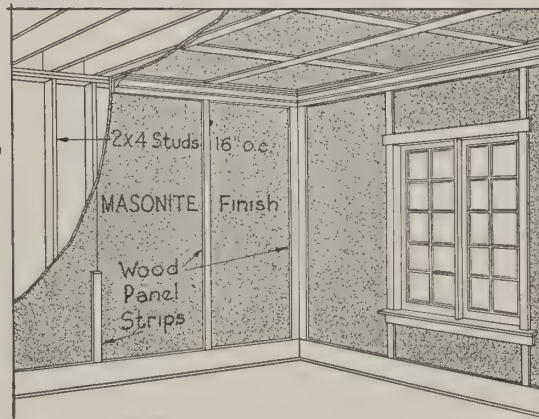


FIG. 6 SHOWING MASONITE USED AS AN INTERIOR TRIM





# MASONITE CONSTRUCTION DETAILS

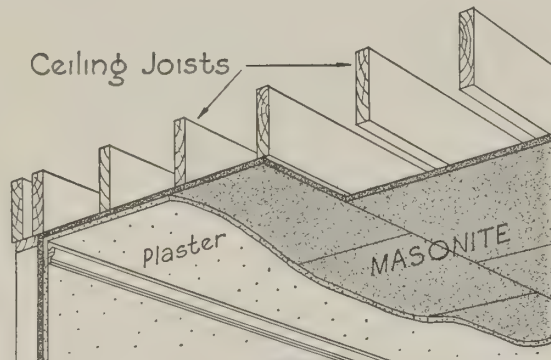


FIG. 7 CEILING INSULATION

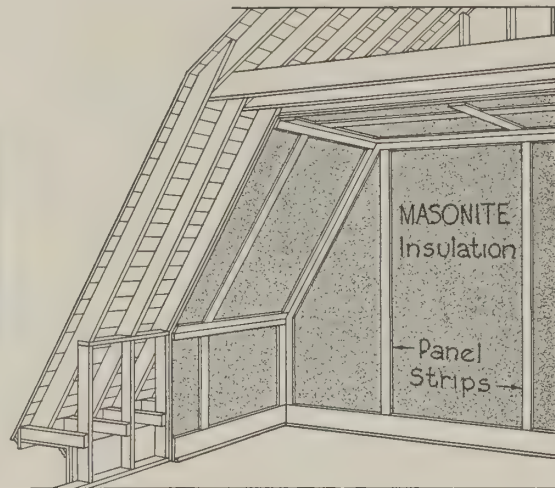


FIG. 9 ATTIC INSULATION

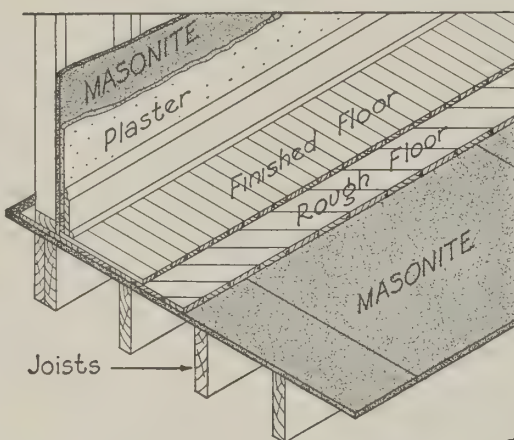


FIG. 8 FLOOR INSULATION

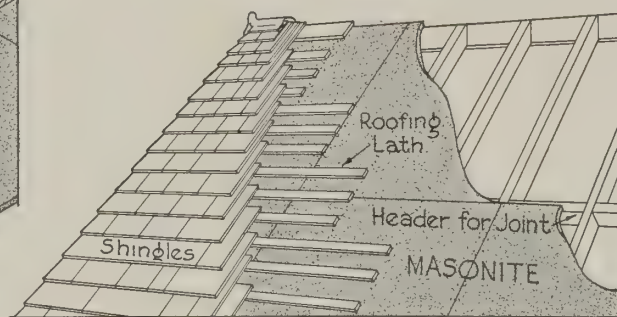


FIG. 10 MASONITE NAILED TO RAFTERS

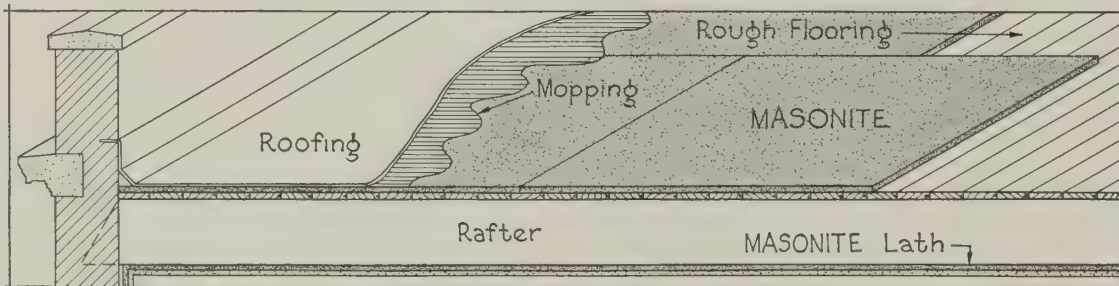


FIG. 11 ROOF INSULATION OVER WOOD DECK

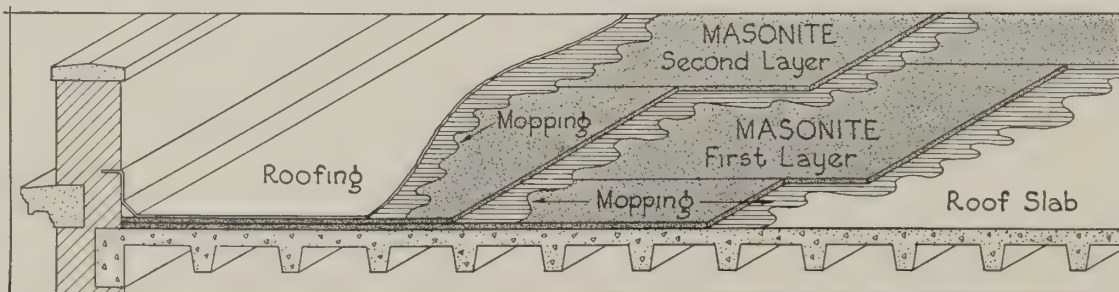
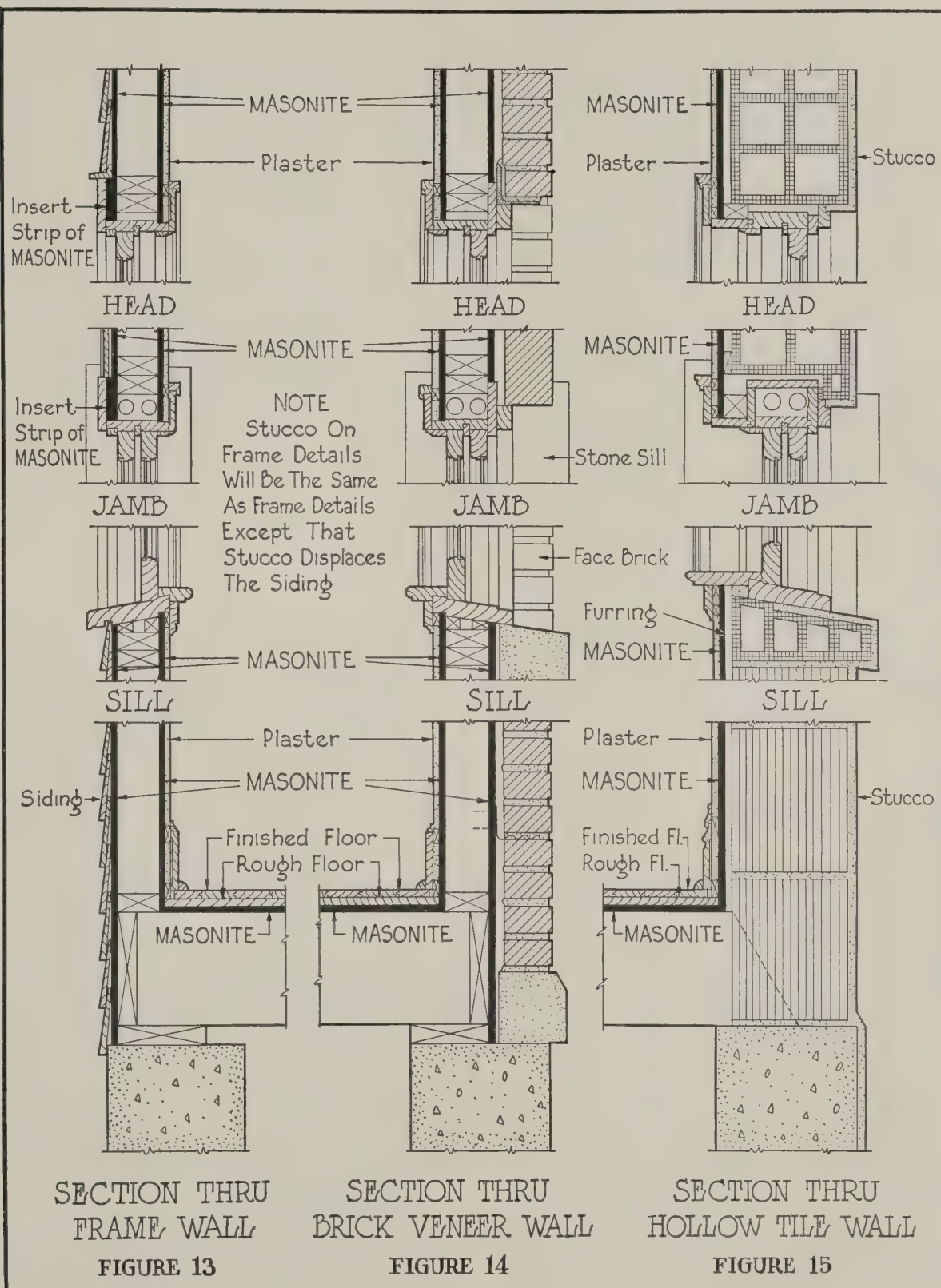


FIG. 12 ROOF INSULATION OVER CONCRETE DECK





# MASONITE CONSTRUCTION DETAILS







VARIOUS CEILING AND WALL TREATMENTS OBTAINABLE WITH MASONITE STRUCTURAL INSULATION BOARD. NOTE THE EFFECTS OBTAINED BY GROOVING THE BOARD IN PATTERNS. THE WAINSCOT IS OF TEMPERED PRESWOOD







## MASONITE PRESWOOD

### *What* MASONITE PRESWOOD IS

Masonite Preswood is an all wood fibre board made from fibre, obtained by exploding fresh clean chips by high pressure steam. These fibres are then thoroughly felted together and pressed into board form in steam heated, flat bed hydraulic presses.

In many ways, Masonite Preswood is an improvement on nature's original material. It is both grainless and knotless. It has great resistance to moisture, and is far denser and tougher. Its strength

is uniform in all directions, having no cross grain. This refabricated wood contains no foreign substance, not even a chemical binder. It is genuine wood and nothing else. The fibres are separated by steam and put together again by heat and pressure.

### SHAPE, SIZE AND THICKNESS

Preswood is made only in board form to a standard width of 4' and a maximum length of 12'. These boards are available in the following thicknesses:  $\frac{1}{16}$ ",  $\frac{1}{8}$ ",  $\frac{3}{16}$ ",  $\frac{1}{4}$ " and  $\frac{5}{16}$ ".

## MASONITE *Tempered* PRESWOOD

### *What* MASONITE *Tempered* PRESWOOD IS

Masonite Tempered Preswood is obtained by subjecting plain Preswood to a special tempering process, which consists of treating the board with liquids and heat, in much the same manner as steel is tempered. This tempering process increases the tensile and transverse strength, resistance to abrasion, and reduces moisture absorption. It has a tendency to further bind the fibres together, filling the

voids and making a denser product. It is an even more dense and tough product than plain Preswood.

### SIZE, SHAPE AND THICKNESS

Tempered Preswood also is made only in board form to a standard width of 4' and a maximum length of 12'. These boards are available in the same thicknesses as plain Preswood, namely,  $\frac{1}{16}$ ",  $\frac{1}{8}$ ",  $\frac{3}{16}$ ",  $\frac{1}{4}$ ", and  $\frac{5}{16}$ ".

## GENERAL INFORMATION and SPECIFICATIONS FOR *Plain* and *Tempered* PRESWOOD

### *Advantages of Plain and Tempered* PRESWOOD

They will not crack, split, or splinter. They are highly resistant to wear and moisture and show little contraction or expansion. They contain no foreign substances of any kind that are injurious to tools. They are easily worked on planers, sanders, and shapers, as well as with hand tools. Tempered Preswood being more dense and harder will produce a smoother and cleaner cut.

### USES OF PLAIN AND TEMPERED PRESWOOD

To cover this subject would necessitate the use of much space, for these products are being used extensively in many diversified fields. The uses pointed out herewith are therefore those uses which are of particular interest to the architect, builder, contractor, carpenter, and home owner. For interior decoration, plain Preswood is used for panels on walls and ceilings, either natural or as a base for any desired decorative treatment. It is used in private homes, business offices, stores, or public buildings. Properly installed, there is no danger of the broad, smooth, handsome boards curling,

warping, or buckling. It is also used extensively in building cabinets and for closet lining.

### TEMPERED PRESWOOD

Tempered Preswood is used for the front and tops of counters, as tops for desks and tables and for drawer bottoms.

It has had wide acceptance for use as a concrete form material, using it both structurally and as a liner inside of wood forms. Where concrete surfaces are to be left exposed, the use of Tempered Preswood for form lining results in a fine, smooth surface on the concrete wall, column or slab, so that no special surfacing or grinding work is required. Possibly its greatest advantage is the number of re-uses it is possible to obtain when it is used as a concrete form material. For complete details and specifications covering this use, refer to Masonite Tempered Preswood Catalog.

### FOR SPECIAL USES

Both plain and Tempered Preswood are used in building radiator cabinets, clothes hampers, fire screens, radio cabinets, card tables, incubators, brooders, shipping cases, children's play houses, etc.

## METHOD OF APPLYING *Plain* and *Tempered* PRESWOOD

**Cutting and Fitting**—Any woodworking tools may be used. The boards should be cut to accurate size. Under no condition should Preswood be sprung or forced into place.

**Nailing**—Both sizes and type of nails to be used are determined by the particular requirements of the case. Where any nailing is required in the center of the board, this should be done first, after which the nailing of the edges should be done. Never "toe-nail" Preswood.

**Gluing**—Glue Preswood just as you would any other wood board, using a good high grade waterproof cement or glue, being careful to secure solid contact over the entire glued surface.

**Finishes**—Practically all of the leading manufacturers of paints, lacquers, and varnishes are familiar with the finishing of both plain and tempered Preswood. As plain and Tempered Preswood go

into so many diversified fields, space does not permit finishing specifications. Where doubt arises regarding the finishing of plain or Tempered Preswood, consult your paint dealer or write direct to the paint manufacturer concerning any special finishes or effects you may desire.

In most instances, where paint is to be used, the use of Tempered Preswood will save one priming coat.

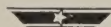
A list of approved primers or sealers for plain and Tempered Preswood is supplied on request.

*Note:* Where Preswood or Tempered Preswood is to be exposed to high humidity, it should have cold water brushed on the screen side and allowed to stand for approximately twelve hours before being installed. This insures a permanent smooth, flat surface.

## MASONITE TEMPRTILE

Temprtle is Tempered Preswood into which scoring has been pressed. The scoring is in 4" blocks, and the Temprtle, when carefully finished, gives a tile effect that in numerous instances is mistaken for ceramic tile. Masonite Temprtle may be installed,

however, at only a small fraction of what a ceramic tile installation would cost. It is practical and decorative in kitchens, serving rooms, breakfast nooks and bath rooms. For complete details and specifications, refer to Masonite Temprtle Catalog.













*Genuine*  
**MASONITE**

STRUCTURAL INSULATION  
INSULATING LATH—QUARTRBOARD  
PRESWOOD—TEMPRTILE

1935



**MASONITE** *Corporation*  
111 W. Washington Street, CHICAGO, ILLINOIS